On the Treatment of Certain forms of Paraplegia by Local Excision

by

John D. Nixon
In the whole catalogue of diseases there is perhaps none which has been more blindly treated in all its different forms than the disease termed Paraplegia. Nor is the rationale of the treatment adopted in the present day, understood by practitioners in general even in those cases in which the treatment followed happens to be successful so that the treatment in its relation to the physicians is a matter of mere haphazard. Thus, a case of reflex paraplegia—unknown to be such by the physician—may receive exactly the same treatment as would a case dependent upon Myelitis, Meningitis, or Congestion of the Spinal Cord. No wonder then that the treatment of this disease should in the vast majority of cases end in unsatisfactory results, reflecting it may be, discredit on the physician. It entailing an additional amount of suffering to his patient, either by confining this original form of the affection or complicating it with the superaddition of some other form of the disease. Nor this latter result may often take place one thinks is most difficult of explanation.
These remarks apply not only to the administration of strychnia, but also to other modes of treatment improperly adopted, or administered.

For example, the application of remedies to the spine in a case of reflex paraplegia. The application of cold to the spine in a case of congestion must be modified in its manner of application, be a modification of the way in which it is employed in the former affection; the result will be injurious.
extensive dilation of the vessels—most probably in some other part of the cord than that which was originally affected—occurs; 2. Congestion or inflammation is superadded. We have said that most probably the seat of congestion will not take place in that portion of the cord originally affected, because we think that this will be a counter-balancing influence which will prevent further dilation. Hence, then the immense importance of a correct diagnosis regarding the pathological condition of any given case of paraplegia.

Our time is too brief to enable us to enter upon a description of the symptoms by means of which the different forms of this affection may be distinguished.

We must confine ourselves, rather, to the illustration, by the reports of two or three cases, of the effects produced, in certain cases, which have come under our own notice, by the application of the new mode of treatment, the perspective administration of the rowed cream. The preparation of the powder is described by Brown Segar, for the having introduced the only successful method of treating those cases of paraplegia dependent upon Melitii, Meningitis, & Congest.
Brown Leguard was not the first to make use of Strychnine and extract of rye in the treatment of paraplegia. But he first pointed out "in what cases of paraplegia, Strychnine or Belladonna extract of rye are to be employed or avoided." — Brown Leguard, "Lectures on the Diagnosis & Treatment of the principal paralyses of the lower extremities," lecture III, p. 99.

Brown Leguard, loc. cit. p. 98.
of the cord; as well as for having shown what are the only cases in which streptemia is likely to be successful."

It is by way of confirming to a very slight extent Brown-Segur's adoption of the saline Cornutum in the treatment of paresis, that this one subject of this paper has been chosen by the writer as the subject of his thesis.

"Here are three affections of the spinal cord, says Brown-Segur: first, there are three affections of the spinal cord or its membranes, which resemble each other by some of their symptoms, require the same general mode of treatment. These affections are, the contraction of the spinal cord and its membranes, the inflammation of the spinal membranes, or the inflammation of the spinal cord."
blood rapidly becomes very much diminished under the influence of these two remedies, which it is doing exactly in the opposite way to that of strychnine.

Led by the knowledge of the above fact we have employed Belladonna and Westphal's, in cases of paralysis or disease to a simple congestion, or a chronic inflammation of the spinal cord or its membranes, and we have obtained a great success; then we had clung to hope for whatever he the value of our experiments on animals as regards the mode of action of these remedies, it is now certain that they have really a great power in diminishing the amount of blood in the spinal cord or its membranes.

In the summer of 1869 there came some cases of paralysis in the wards of the Royal Infirmary of this city. The physician of the ward, Dr. Bennett, ordered 5-gr. doses of the decoction of the leaves of Cornu. It was taken by each of them, thrice daily. One old gentleman who was present shook his head in a very anxious and contentious manner. I hit a
warning to all, let us beware of ergotism! However, the ergot was given, as ordered, and no ergotism made its appearance. On the contrary, the effect upon the patient was, without exaggeration, wonderful. It is more than two years since those cases were treated, but as marked was the effect of the remedy employed that I have never forgotten it. I well remember that those patients, who were utterly unable to walk, for the locomotory sense, by which they were led by the aid of a stick, or the assistance of some one, had no claim to the title of walking. Some enabled in a fortnight or three weeks' time to walk with comparative ease.

I make these remarks previous to commencing the reports of these cases, allowing them to speak for themselves, because the reports do not by any means impart the reader with the true extent of the change which took place.

And there is another point to which I must refer, one in connection with the speedy alteration in the condition of the patient.
* But a letter objection to this view is that - red - if I write a
  monst maintaining a recumbent posture it will not mean condens. 
  & the cure of a case of congestion - Dr. [Signature]
It is that, the improvement seemed to be progressive, remained stationary or very nearly so, after the first fortnight or three weeks. But to this point I shall again make reference.

The first case which I shall give, evidently began as a case of reflex paraplegia, but very rapidly changed its type, or perhaps what is more likely, the congestion existed came on almost at the same time; so that both forms of the disease existed together.

Case of John Malcolm, aged 28, single. Engineer. Admitted into the Hospital June 8th, 1858.

Until the commencement of his present illness, patient had always enjoyed good health, excepting an attack of acute disease which he had eighteen months previously. During the latter end of 1856 and up to May 1857 was engaged working on the Thames, at the Chelsea suspension bridge. While thus employed, he was constantly exposed to the cold weather; he had to sit on the cold metal, which he thinks was the cause of a number of boils breaking out on the gluteal region, which made him give up work for a week.

In April of the same year the premonitory symptoms of his present affection made their appearance.
State that he remembers one night during that month having spasms, or rather spasmotic twitchings of the legs but that they were unaccompanied by pain. After that he continued to have occasional twitchings sometimes accompanied by pain: his legs began to get weak. Then these symptoms increased in intensity, the twitchings got more frequent, violent, more often accompanied by pain: his legs got weaker and weaker: a sensation of numbness in his lower extremities was experienced by him. But until the month of September 1837, the twitchings, numbness occurred only felt when in bed.

By May of the same year, he was compelled to give up work at the bridge. He then went home, a how long after is not said - again commenced work, at which he continued until September. Since April of the same year 1838 he has written got better nor worse. Had been treated by two medical men, but without success. In June 1838 entered the Byc Leaf of Glasgow, where he remained under treatment for three weeks, at the end of which time he was discharged at own request: whether he got any better during that time does not appear from report. After leaving the Glasgow Byc had an attack of
Small pox, which illness lasted for three weeks. Such are the principal facts of the case as contained in the hospital report. A report very incomplete however in some respects. From this can be no doubt that up to the month of October 1805, this was a case of reflex paralysis accompanied by a certain amount of congestion. But the fact remains that after being exposed to exposure of peripheral irritation it would be difficult to say from the history, whether it was not a case of acute inflammatory condition accompanied by congestion. The proof of the congestion would have been the hemorrhagic extravasations, numbness, pain; and all the more that these symptoms during the first three or four months were only took place, or at all events were worse, when the patient lay in bed. And from the fact that when the had returned home he was enabled to commence work again, in this we can trace a connection between his improvement — for he must have been a little better previous to recommencing work — to subsequent removal from the original source of the irritation. By sitting on the cold metal, and the exposure to cold weather. A further confirmation of the view that it commenced as reflex paraplegia.
But one long to the symptoms on admission, & treatment.

Complaint

Circulatory system - Normal.
Respiratory system - Normal.
Genito-urinary system. He has incontinence of urine. Urine of opalescent straw color. 50.145
No Allergies. Chlorides present. On examination by urine. The microscopy there was observed a quantity of pure cells & compound cysts.

Nervous System - Complains of a feeling of numbness in the posterior surface of both legs the right especially extending from the gluteal region down to the heels. Complains also of twiddling of both legs accompanied by pain. He walks matterly & drags his feet along the ground being hold by surrounding objects to support himself. His sensibility of the extremities is intact. In bed he can move his limbs quite well. He can stand on the upright position with his eyes shut, then stooping forwards. Complains of pain in the lumbar region.

Integumentary system - Skin are four small moles on the inner surface of the left leg. One on the outer surface of his left leg. His right foot from the ankle to slightly localized.
June 16. To day Dr. Bennett ordered the following prescription. Rx. Pub Sec. Carm. 92 v. St. puncture in mid. Patient states that

June 19. Patient expreies himself as feeling much better. Says the pain & feeling of numbness in left leg & the much better leg. He can lie on his right side now without pain which he could not do on his admission in consequence of pain which lying on that side caused on his right back. He has continence of urine better leg. Tongue still very much forced, not as much cracked in middle.

Appetite pretty good.

July 1st. Patient continues to improve. WALKS BETTER
Appetite good. Bowels open. Sensation of numbness
Foot completely dead.

July 12th. Continues well in his general health. Walks no better. Them at last report. He still occasionally catches an surrounding subject & support himself when walking.

July 22. Complains of pain in left hip joint which he says has been present more or less since the 17th of this month. Ordered by Dr. Bennett one of copper lin. Targ. & C. "pinc. Great astringin. The pain on pressure except when sitting. Sensation of numbness in right fore leg.

The patient was suffering from dysentery. The symptoms already began. He was taken to the hospital. He was treated with fluids. His condition improved. He was discharged from the hospital. The patient was advised to rest and eat light meals. He was advised to stay in bed for a few days. The patient was advised to take probiotics to aid digestion. He was advised to drink plenty of fluids. He was advised to avoid spicy and oily foods.
In this view, were the change in the patient's condition due to lack of good nourishment only did it take place as rapidly, almost instantly, the patient had been getting the same amounts of nourishment for seven days previous to his getting the egot, but no amendment took place. And yet, no sooner does he begin to take the egot, comes the Patient, the pain of feeling of numbness in the legs are much less, he expresses himself as feeling much better. This is the report of July the 19th. The four days after the egot was ordered. Then on July 20th. "Patient continues improving. Walks better." The patient before giving the report of the case, that the report in the hospital looks did not indeed could not give a correct idea of the amount of composure which took place within. The first few days of taking the egot, and so the home again to remark that the expression makes better. An report of July 20th. comes an idea of the change which the patient had taken place in the state of the patient. Further with regard to the point of real good nourishment, one have to notice that the patient could not look to be well and previous this admission into the hospital. So that the real we attained there was not notably thinner. And in regard to nourishment the patient had no half returned appearance.
on his admission; & I question very much the fact of this getting any more nourishing food within the hospital that will get out of it. So our mind therefore it seems that there is no doubt that their improvement in his patient's condition was due to the action of the opium. And this cannot remain a secret.

It may be asked why did the disease last so or improving it as long as he took that remedy? That question is just as applicable to the previous view as to this. But our explanation is at hand to seek. The congestion was only a part of the affection that the opium removed, but expressly, but having done so, it could do no more. May its further administration could only be followed by harm. That upon what the exact nature of the morbid condition existing along with the congestion was we are not prepared to say. It might come from the condition which occurs in reflex paralysis, having no organic alteration. Or there might have been non inflammatory injury which however may be the result of that condition which existed in reflex paralysis. But after all the explanation may be found in the fact that thirteen or other remedies employed the administration of the ergot of rye. The disease might have been diminished, as it appears to have been from...
the employment of further means.برجس of eye cannot be expected to accomplish a cure by its own incised incision.

We shall now proceed to give the report of another case.

One of Mr. Rutherford, late 2nd Baltic. Admitted June 1763.

States that with the exception of an attack of fever 20 years ago he has always enjoyed good health previous to this present illness, which commenced in May 1835. From May 1835 to June 1836, however, he only suffered occasionally from some pains in his legs. In June 1836 a feeling of numbness accompanied by excruciating pains came on in his left leg.

The numbness continued to increase, his legs became weak, he took to his bed and remained there until in the September he became so bad as to be obliged to give up work. His Medical attendant then ordered the chest to be applied to the small of his back, followed thereupon by a continuous succession of poultices. During these applications he got much worse, and for a period of four months was unable to leave his bed.

Since then he has remained in much the same state, excepting that during the month of January 1837 he had a return of the dreadful pains which had accompanied the sensitation of numbness at its first appearance.

The numbness gradually disappeared.
Symptoms on Admission

Circulatory System - There is a loud blowing murmur with
heard at the second sound of the heart. Cough at times.

Respiratory System - Normal. Definitive System.


Urinary System - Patient has difficulty in
micturition. Which he says he has had for more
than 12 months. Urine of a light brown color
Chlorides present.

Integumentary System - Both lower extremities
are considerably emaciated.

Nervous System - Feeling of numbness in both
lower extremities. 9 diaries encircling the
feet. Complaints of slight pain in the
lower part of the lumbar region. Patient
cannot walk at all by his own unaided efforts.

June 25th: Ordered by Dr. Bennett.

By Pdr: croc. Carrot. Jr. 1/2 pdr. at

Lig. One pound of salt given thrice daily.

June 29th: Patient expresses himself as feeling
much better to day. Sensation of numbness
and pain. Can now take three or four steps without
assistance, tho' with difficulty.

June 24th: Patient still improving. Can now walk about.
the room without assistance; bent slowly & with considerable difficulty. Feeling of numbness still disappearing - Appetite much improved.

Bowel open

June 27th Patient continues to improve. Can now walk across the room with tolerable ease of form & firmness. The sensation of numbness is almost entirely gone. Makes his water with much more ease than he could on his admission.

The pain on the lower part of the lumbar region is almost away. Appetite good. Bowels open. Tongue clean. Pulse 90 full & strong.

July 2nd. So day, complains of shooting pains on both legs, extending from the knees to the toes. Sensation of numbness slightly increased. Formation still present. The much diminished. Appetite not so good.

July 5th. Pulse 80 of fair strength.

July 9th. Patient feels the same today. In the morning reports the pains are almost the same to day.

July 14th. Says the pains are fast decreasing to day. In the evening reports feels much better than at

July 9th. Patient declares himself as feeling a good deal better than he has done for a few days. Appetite is greater. Sensation of numbness, & formation lumps & the pains quite away.

July 25. The has continued to make steady improvement up to this date. Can now walk without assistance; put one foot before the other without difficulty, but progression is some far from perfect.

Remarks: At the own request, also as well as with preference and succeeding the case, there was no other means used except the cases. Had it been otherwise, there is no doubt improvement would have been greater. But in the absence of other constructive remedies, the action of the cases in relieving the present stands out all the more prominently.

Case III

One of David Remick, aged 42. Admitted June 6th, 1859. Always enjoyed good health previous to March 1858. In that month a feeling of his lips became week, and had been a feeling of contraction in them. In April began to lose the power of motion in his legs, which was accompanied by a sensation of numbness. Since that time he has also been troubled with a pain in the lower part of the right lumbar region.

On admission — Complains of duration burning in both legs. Slight formation. Walks uneasily, catching hold of surrounding objects near others. Cannot stand with his legs about. No pain in back.
The writer has detached his agent at the two least names in which this paper has been written. (Unreadable) 

This will be esteemed.
July 10th  - Feels much better today. Marked improvement in leg - especially in right leg. When he entered the house the patient could not walk alone a few steps without assistance but to day he walks with care & activity, without even the assistance of a stick.

July 19th - Still feels some numbness, formation on left leg, but continues to improve on walking.

July 24th - His left leg is much better. Completely.

July 25th - Represents himself as feeling almost better. Still continues to walk slowly, having his left leg nearly as well as the right. Can stand for some time now with his eyes shut.

July 29th - Continues to improve, can move around today.

Remarks: So much the quicker amendment in this patient's condition was one we think can not be a matter of doubt. On the 7th, not able to walk, covered with coma, by the 10th, walks with care & activity. Can The idea is seriously entertained that in this case, or in the preceding one, Brown had any thing to do with the patient's amendment. Having already indicated in a quotation from Brown the modes of action of this remedy, we need not enter upon it now. There only. In fact, that the limits of my space has been reached, that without further almost must conclude. *